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(22) Process for detecting specific mRNA and DNA in cells.

(23) This invention relates to a process for detecting the presence and measuring the quantity of specific mRNA sequences present in *in vivo* cells or cells maintained *in vitro*. The process of this invention is applicable to the screening of prokaryotic and eukaryotic organisms including the screening of human beings for the presence of disease states. The process of this invention is also applicable to the *in vitro* screening of the effect or effects of chemical compounds upon one or several gene products as exhibited by the presence and amount of mRNA resulting from transcription of said gene or genes. The process of this invention is particularly suited for screening of a large number of compounds for the effect or effects of compounds upon gene products. This invention also relates to compounds capable of affecting the presence of specific mRNA sequences in cells. The process of this invention also is applicable to the identification of novel gene constructs in viruses, microorganisms, plants and animals. This invention also relates to a novel process for the isolation of RNA and DNA from cells, by lysing them in water heated to about 99°C.

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